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MEDICAL AND SURGICAL REPORTER.

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ORIGINAL DEPARTMENT.

COMMUNICATIONS.

THE NATURE OF INFECTION.

BY J. JORDAN BROWN,
Of Millinville, Pa.

Many principles of science originated in hypotheses. The circumstances attending phenomena indicate some cause for their production. Should this presumed cause account for all the conditions, it is valid, if not, truth has still been advanced by the exclusion of error.

Modern investigation has developed a world of life, the individuals of which are microscopic in size, while some are so minute as to elude the detection of the magnifier.

Recent investigations of Prof. Rindfleisch, of Bonn,* have extended our knowledge on this interesting subject. "His present researches have reference to the origin of these lower organisms which appear in decomposing substances, and to which the author applies the name of schinzomyceta, including vibrios, bacteria, zoogloea, etc. . . . The author, it may be remembered once for all, used the greatest precaution in conducting his experiments. The metal instruments which he used were always, immediately before using them, heated to a red heat (superheated), and the glass slides, etc., first steeped in absolute alcohol, and the alcohol got rid of by burning it off in the flame of a lamp. The substance experimented upon was a minute portion of the flesh of a freshly killed animal, removed with the precautions

referred to, and placed in distilled water on a glass slide, and examined with an immersion lens." The result was a number of granules, possessing rapid motion; they soon attached themselves to some part, developed into minute chain-like bodies, which chain would break up, each link of which formed an individual bacterium possessing motion, and by the author considered animal in its nature. "In addition to this the author found the organism called micrococcus, this being the lowest form of vegetable life, while the bacterium is the lowest form of animal existence."

As to their origin, they appeared in the fluid after two days, when he used distilled water, the greatest precautions being taken to exclude dust. He found, on using ordinary spring water, that the organisms were more abundant, and their development more rapid. This led him to suspect that the distilled water had picked up the germs from the air, or that they had not been destroyed by the boiling. He repeated the experiment, using instead condensed steam collected into a drop by superheated platinum wire; the result was that "even after weeks no schinzomyceta appeared." The germs of these organisms had, therefore, in the former experiments, been picked up by the distilled water.

Dr. Cobbold* enumerates thirty-one distinct species of parasites affecting man, attacking various organs, the eye, the alimentary canal, the muscles, liver, brain, heart and lungs. Animals are alike affected. The "rot" in sheep is caused by the fasciola hepatica which is found in the liver, the

* *Am. Jour. Med. Sciences*, Oct., 1872, p. 519.

* *Report Department of Agriculture*, 1864, p. 384.

long tape worm results from the consumption of measly pork.

"Various species of algæ and fungi have been ascertained, some of which are characteristic and thus constitute diagnostic criteria of certain forms of disease. . . . The presence of the cryptogamic plant appears to constitute an *essential* pathological element in the several *contagious affections*, and they are probably communicated by means of the germinal bodies, called spores."

"These parasites* are usually imbibed by the fluids of the animal whose body they inhabit. . . . The air and the food offer a ready means of entrance into the respiratory and digestive passages. . . . Some may gain an entrance into the blood-vessels and circulate in this way all over the body. Thus the *filaria rubella* is found alive in the blood-vessels of the frog, the *distoma hæmatobium* in those of the *human subject*, and a species of *sporoptera* in those of the dog. It is easy to see, therefore, how by such means parasitic germs may be conveyed to any part of the body, and may even be, by accidental arrest of the circulation, deposited in the substance of the solid organs."

From the foregoing it is evident that parasites are productive of disease. This is sufficient ground for believing that they are possibly the cause of *other* affections whose origin is obscure, especially communicable diseases. Indeed, one disease capable of propagation, whose cause was once involved in mystery, has been traced to this cause. Not many years ago the cause of a disease in which there was vomiting, pain in the abdomen, diarrhœa, followed by stiffness of the muscles, soreness of the same, resembling rheumatism, pneumonia, fever, apnea, pro-lapse and death, was unknown. Professor Zeuker, of Dresden, showed the whole trouble to be a parasite, the *trichina spiralis*, so small that one ounce of flesh is capable of accommodating three hundred thousand. These symptoms no more suggested a parasite than do those of yellow fever and small-pox.

Infectious diseases engender the means to propagate themselves. That is to say if one atom of this product of the disease be taken from one individual and inserted in another, under favorable circumstances, it will there multiply indefinitely, producing germs sufficient to infect a continent. Reproduction

has here occurred. Inanimate matter cannot germinate. All things capable of reproduction have life; this cause, or infectious substance, having reproduced itself, must be living, vital. Infection is active for a period, subsequently powerless. Vaccine virus when fresh will produce a specific disease. This power is lost by age, notwithstanding every precaution by its preservation in wax, glycerine, sealed tubes, etc.

The infection of yellow fever is practically destroyed in ships by filling them with superheated steam.* The clothes of scarlatina patients cease, after a period, to become contagious.

The empirical treatment of such affections is evidence for the parasitic theory. Carbolic acid, the most popular disinfectant, and generally admitted as among the most sure of the destructives of lower organisms, according to the medical journals, has been used with marked benefit in the treatment of measles, small-pox, scarlet and typhoid fevers. Dr. A. E. Sansom† speaks very highly of carbolic acid as a disinfectant in small-pox, not only arresting the diseased process in the individual, but also preventing its spreading in the community.

The propagating materials of contagious diseases is solid or granular. This M. Chaveau demonstrated by three series of experiments, one of which is this:‡ "After having proceeded by washing and filtering to separate the corpuscular element suspended in the virulent humor, if the corpuscles alone be inoculated and then the fluid alone, inoculation of the latter will fail, whilst that of the former will succeed. These solid particles then render the contagious property."

All these facts are proof of the parasitic nature of infection, just as conclusive as are any or all that are produced in favor of many leading principles in astronomy, geology, and the collateral sciences, facts the *basis* of every act of scientists.

Undoubtedly, then, were we to turn our telescope toward the indicated portion of the pathological heavens we would be able to discover the object whose existence is already proven.

In August, 1871, Dr. Losterfer‡ commenced a series of microscopic investigations with

* *Am. Jour. Med. Sciences*, July, 1872, p. 30.

† *British Med. Jour.*, Nov. 25th, 1871.

‡ *Rankin's Half-Yearly Abstract Med. Sciences*, Jan., 1872.

§ *Med. News and Lib.*, March, 1872, p. 48.

the object of discovering something that would be diagnostic of syphilis in the blood of persons affected with that disease. "A drop of fresh blood drawn from one of the ward patients was put as quickly as possible in a clean object glass, covered, the whole object glass conveyed to an exsiccatorium and arranged in a kind of Recklinghausen's moist camera, and carefully examined daily with the magnifying powers above mentioned. The first two days nothing could be seen except vibriones, bacteria, and commencing forms of sarcoma." After this minute bright corpuscles became visible, some of which were in a state of motion. From the fourth to the sixth day they enlarged in bulk, while some showed a projection, which projections continued growing until they were even larger than red blood corpuscles. This subject was more fully discussed at a meeting of the Vienna Medical Society, in January, 1872.*

"Dr. Neumann said that nearly four years ago Hallier discovered structures in the blood in infectious diseases, and also in syphilis; he said that these gave rise to syphilis, and that their most minute elements penetrated the blood corpuscles and rendered them diseased. He had visited Hallier, that he might learn more of their characters. The result of various experiments was that bacteria were developed in the blood corpuscles of the infected blood, which in *no respects* differed from those developed under similar circumstances in the blood from *other contagious diseases*. He had found them in the blood of small-pox, eczema, etc. . . . Dr. Geber, in company with a colleague, examined the blood of a variolous patient, and found in it corpuscles quite analogous to those presented in syphilis.

Lostorfer failed to prove these new bodies peculiar to syphilitic blood. Geber, Neumann, Hallier, Gruber and Stricker found the same in the blood of other *communicable* diseases. In all the controversy it seems that not one found these germs in healthy blood. Had they done so they would undoubtedly have made it known, as it would have had an important bearing upon the subject. True Dr. Wedl *claims* to have done so, but it would seem that in the selection of his case syphilis was the disease he tried to avoid, while at the same time his subject might have been exposed to some

other infection. It was afterward shown that his examination was so conducted as not to be admissible as evidence.

These investigations result in establishing these facts: There are low forms of life, some of which can, and some of which cannot be seen with the microscope. More than thirty varieties of these infest the human system. They permeate the fluids and solids of the body. They are known to be the cause of *some* diseases, which makes it possible that they are the cause of others. The cause of infectious diseases is obscure. Probably *they* are caused by species of parasites. This supposition matures into an established fact when supported by the following truths:—Under the microscope of Chateau the active principle of infection is a solid granule. Such remedies as are most destructive of parasites are most efficacious in communicable diseases. *The cause dies*; only living things are subject to death.

Lostorfer shows them or their germs actually to exist in the circulating blood.

REMARKS ON THE PATHOLOGICAL SIGNIFICANCE OF THE PECULIAR ERUPTION FROM THE EFFECTS OF THE PREPARATIONS OF BROMINE.

BY BEDFORD BROWN, M.D.

Of Alexandria, Va.

There are many circumstances connected with the progress and treatment of internal disease, either organic or functional, in which it is often exceedingly desirable to establish a general cutaneous action in the form of an active but innocent irritation or eruption, as a therapeutic means.

Nature not unfrequently performs this office unaided by art, sometimes with partial, at others with complete success. At times it is expedient to aid the inadequate efforts of nature in this direction, while in instances of her failure to act we should make proper use of the example and principle which she so often teaches us.

The peculiar properties existing in the preparations of bromine which give them the power of inducing an active eruption on the cutaneous surface and maintaining it there for an indefinite period, impart to them an additional value otherwise than their mere sedative or alterative action.

There are but few morbid conditions in which the drug fails to produce this specific

* *Med. News and Lib.*, April, 1872, p. 60.

effect. Failure to do so is more liable in extreme adynamic, or anemic conditions of the system, than in the opposite states.

Thus whenever in the treatment of disease it becomes desirable to produce such effect for the purpose of establishing an extensive superficial counter-irritation in a mild but efficient form, we have an agent at command as harmless as it is prompt. There are certain forms of disease which arise chiefly from suppressed or retrocedent eruption, which are often promptly relieved by its restoration, while there are few internal affections which are not either relieved or mitigated by its establishment, whether by natural or artificial means. The eruption of brominism does not always present the same character, but differs to some extent in different constitutions. In some it appears in the form of genuine acne, in others it resembles erythema more nearly, while in occasional instances of children it presents the appearance of rubeola.

The appearance of this eruption in some constitutions is invariably attended with a considerable degree of febrile reaction, and when febrile excitement is absent there is often some evolution of heat at the seat of eruption. The effects of bromine on the nervous system are not always of a depressing character, as epileptics and other patients who take it often speak of the sense of relief, the increased cheerfulness of mind, and renewed physical vigor attending a full crop of the specific eruption. An epileptic patient with disease of long standing says that the relief not only from eclampsia, but from the associated feelings of indisposition, is never so great as when the face and body are densely covered with this eruption. At such times the mind is clearer, more cheerful and uniform, and the memory more retentive. But so soon as the eruption begins to fade, both mind and body relapse into their former state. The effects of the remedy on the processes of hematosis and nutrition, when the eruption has even been maintained for a protracted period, are generally favorable, as such patients will increase in flesh, and improve in complexion manifestly. With the exception of epilepsy, this remedy is really more strictly adapted to the treatment of acute forms of disease than the more chronic. It is more particularly true of acute disease in children, that the counter-irritant influence of this eruption on the skin is valuable and efficacious

in relieving internal congestion and irritation.

In this particular class of patients the presence or sudden subsidence of cutaneous eruptions are often so intimately associated with their peculiar pathology, that a remedy which possesses these properties presents more than usual attractiveness. Hence to diseases of childhood, either arising directly from suppressed eruption, or such as would be mitigated by inducing active eruption over the general surface, the preparations of bromine are peculiarly adapted.

The following cases are briefly cited for the purpose of illustrating more clearly the effects directly exerted on the progress of various forms of acute and chronic disease by the eruptive stage of brominism.

An infant sixteen months old was attacked with convulsions, for which bromide of potash was given in full doses. The convulsions ceased, but in a brief period extensive pneumonia in one lung was developed. The bromide of potash was continued as the leading remedy in connection with external applications. In four or five days the peculiar eruption of bromine made its appearance, and literally covered the entire surface with a dense crop, to the speedy and effectual relief of the pneumonic symptoms. The eruption did not subside entirely for more than ten days. A case of pleuro-pneumonia in a child of seven years becoming protracted, was placed under the treatment of bromide of potash and ammonia. After their administration for a few days, a full crop of eruption appeared over the surface with an early abatement of the pneumonic affection. This remedy has been resorted to repeatedly in the pneumonic and catarrhal affections of children, and whenever the characteristic eruption has appeared abundantly, the effects on the local disease have been favorable. The action of this agent on the acute organic or functional diseases of the entire mucous surface of the respiratory passages, as tonsillitis, laryngitis, spasmodic croup, asthma, catarrh, and pneumonia in children, when it reaches the eruptive stage, is often prompt to afford relief. In the more chronic bronchial affections a full crop of the eruption of bromide is often of essential service.

A patient with chronic enlargement of the liver, accompanied with some degree of serous effusion in the abdomen, took the bromide of potash for many weeks without

material benefit being derived, until the skin became well covered with eruption. Then gradual reduction in the dimensions of the organ commenced, and was finally complete.

In a case of chronic metritis during treatment, the specific eruption was induced three times from the use of bromide of potash, the remedy having been suspended after each crop. In each instance the eruption was accompanied with rigor, marked febrile reaction, headache, nausea, and vomiting, while there was material improvement in the uterine symptoms after every attack.

A patient with obstinate peri-uterine cellulitis used large quantities of the bromides of potash and ammonia, without improvement, until a very dense eruption appeared. The intense itching sensations proved to be a counter-irritation of infinite service in the ultimate restoration of the patient.

A delicate female suffering with hemoptysis took the bromide of potash in large quantities to relieve excessive nervous and mental excitement. A very extensive crop of eruption over the entire body was the result. The eruption proved more than usually obstinate and severe, and ultimately exerted a favorable influence on the progress of the internal affection. A patient laboring under long standing irritation of the kidneys, excess of lithic acid in the urine, and decided gouty tendency, always found relief from the specific eruption of bromine, which dated from its appearance. Two cases, one a painful affection of the eye, the other of the ear, were finally relieved on the appearance of this eruption.

A gentleman who had been quite a sufferer from chronic urticaria used the bromide of potash freely. He was finally relieved of his old enemy permanently by the appearance of a new eruption.

There is another affection of the skin occasionally met with in practice, which is not eruptive in character, but rather involves the sensorial functions of the cutaneous structures, and which consists in an intense and painful itching, particularly when the surrounding temperature is increased, or after retiring at night. In two instances of this kind the peculiar eruption from the action of bromide of potash produced entire relief.

In the treatment of the adynamic class of diseases, as typhoid fever and pneumonia, when attended with delirium, subsultus,

vigilance, and restlessness, the preparations of bromine, and more particularly the bromide of ammonia, after the eruptive effect has been obtained, have exerted the happiest effects. In a case of typhoid pneumonia, accompanied with unusually violent delirium and vigilance, the action of bromide of ammonia, after being carried to this extent, was completely successful in subduing these symptoms.

BILIOUS PNEUMONIA.

BY S. P. JOHNSON, M. D.,
Of Waterloo, N. Y.

(Read before the Central New York Medical Association, held at Syracuse, June 18, 1873, and Seneca Co. Medical Society, at Waterloo, July 9, 1873.)

I desire to present the result of my experience upon a peculiar form of bilious pneumonia which has been more or less prevalent in this vicinity since last September. I have heard of some cases, and seen notices in different newspapers of others, where persons have died after an illness of four to six days, only complaining of feeling very tired and weak, prostrated and uneasy, which increased, they nor their physician considering them dangerous until they were past help and in a dying condition. Such, gentlemen, I consider a peculiar form of bilious pneumonia.

The symptoms are a tired, weak, prostrated feeling for a few days, with *quickened respiration*, especially upon exercising, as walking about the room. Tongue only slightly furred, if at all; bowels usually regular, or slightly constipated; urine sometimes normal in appearance, at other times resembling strong coffee. The pulse during the winter varied from 60 to 90 per minute, being *soft*, weak, and *frequently* irregular; in the majority of cases it being only 60 per minute. In nearly all the cases there is *no pain, expectoration, or cough*, which would lead one to suspect the true nature of the case, the main symptoms being a languid feeling or depression of the vital forces, with hurried respiration.

During the spring the pulse has usually been higher, 90 to 100, and if the premonitory symptoms were those of catarrh, in which case there is more fever, the pulse frequently runs as high as 120 per minute.

The physical signs are dullness on percussion, which increases according to the severity of the case, until in two or three days

one-half or even the whole of one lung becomes involved; usually it is the right lung affected, but frequently the left or both; upon percussion the line of demarkation is very distinct, one-half inch above the resonance is clear, less than that below it is decidedly dull. The *crepitant rale* is not heard at any stage of the disease, the respiration being *bronchial* in the part congested, and should the disease prove fatal the patient would probably die from asphyxia.

The patient is usually not confined to the bed, but is able to be up and about the house the greater part of the time, and in some cases to be out of doors and riding, but *walking increases the congestion* and should be avoided as much as possible.

Diagnosis.—The only disease, in my opinion, for which it is liable to be mistaken is phthisis, and at first it may be difficult, but may be known by the previous good health of the patient, the suddenness of the attack (being but a few days), the *rapid extension* of the engorgement, and the symptoms resembling those of a low billous fever.

The prognosis is favorable, except when the engorgement has extended to a considerable degree on both lungs, and when complicated with latent tubercle.

The cases which have come under my observation have all recovered. I am, therefore, unable to give the morbid anatomy of the lungs.

Its pathology and nature are similar to those of common pneumonia, *excepting* that in my opinion it arises from a *purely malarial origin*, poisoning the blood, and the result is the pneumonia. I do not think there is any effusion in the lungs, unless it goes on to a fatal termination; but the *air cells* are *obliterated by pressure*, for when the disease gives way it does so *rapidly*, and the lungs, or the portion which was congested, sounds clear in twenty-four to forty-eight hours; the respiration is then vesicular.

I have found in some cases some tenderness in the liver, but in the majority of cases there is none.

When the pneumonia has taken place there is tenderness in the part, on percussion, of which the patient may have been previously wholly unconscious, although the disease may have extended to two-thirds of one whole lung, and, as I said before, there is no cough, expectoration, or pain, which would lead one to suspect the true nature of

the disease. *That can only be discovered by percussion and auscultation.*

Treatment.—No bleeding is necessary, and if done would only *prolong* the disease, if not result in disaster. Antimonials are out of the question, and should not be given at all under any circumstances; the same with *lobelia*. We must bear in mind that we are not treating *actual inflammation*, but a *congestion or engorgement of the capillaries of the lungs*, perhaps of an imperfect fibrinous nature, preventing the circulation and the aeration of the blood.

And the proper treatment is to relieve the torpid liver, and support the patient. The treatment which has been very satisfactory in my hands is to begin with a cathartic dose of calomel, followed by laxative doses of the same, once in twenty-four hours for two or three days, or until the torpid liver is brought into a healthy action, at the same time giving large doses of the sulphate of quinia, say twelve to twenty grains a day, and continued as long as necessary. I find that when giving the above amount of the quinine it checks the progress of the disease almost instantly. Whereas, in giving smaller doses, the congestion extends until you get enough quinine down to check it. If its constitutional effects are produced then reduce the dose as much as necessary. A blister to the part affected concludes the treatment. In uncomplicated cases recovery takes place in five to ten days.

If there is any danger of producing pytalism from effects of the mercury, then give chlorate of potassa freely, and you will prevent it, and it might be well to give it as a matter of prudence from the first. Opium given, in my experience, does more *harm* than *good*, unless given to control the bowels, etc. In cases where the lungs are much affected with latent tubercle, the carbonate of ammonia will be found useful, or the liquor ammoniæ acetatis, and in debilitated constitutions brandy.

MEDICAL SOCIETIES.

THE NORTHAMPTON COUNTY, PA., MEDICAL SOCIETY.

The Medical Society of Northampton county met at Easton, July 19th, 1873. Dr. John Sandt, of Stockertown, occupied the chair.

Dr. Ott read a translation of Dr. Voisin's

prize essay on Bromide of Potassium (*Archives Generales de Medicine*, January, 1873).

This author's article contains the following points:—

1. The great necessity of administering it in a pure state.

2. The better mode of administering it is to give it in sweetened water at the commencement of the meal. Care should be taken of the teeth, as bromine is eliminated by the buccal mucous membrane.

3. We should watch the action of this medicine, as bromism can supervene in two different fashions, the slow and rapid form. The slow form announces itself by a deathly white color of the skin, especially of that of the face, by hebetude, stupidity, dryness of the mouth, its mucus becoming pasty, by diarrhoea, considerable meagreness, titubation, profound sleep, a sort of coma, by difficulty of speaking and finding words, by a bronchial catarrh which may become suffocating. Bromism comes on rapidly in those who take little exercise. It may be produced in a few days by daily doses of twenty to thirty grains in patients confined to their beds. Exterior temperature does not seem to exercise the least influence on the genesis of it. Bromism appears in patients who have taken for many months or many years of doses from sixty to one hundred and fifty grains, without any assignable reason that it should occur at that moment rather than at any other.

The brisk, rapid form presents itself in the following way: In patients who have taken for three or four years of this medicine in doses of ninety to one hundred and fifty grains, titubation, considerable difficulty in the gait, impossibility of expression, drooping of the eyelids, somnolence, pain in the head, diarrhoea, dull look, stupidity, writing is tremblingly or badly traced, the phrases are written in a mode nearly incomprehensible, because they want portions of entire words. The tongue, at the end of some hours, is red, dry and broad. The patients are very thirsty.

The treatment of bromism is the immediate disuse of the medicine, baths of dry vapor, black coffee, purgatives, diuretics, and a very nourishing liquid alimentation.

4. A good sign to determine if the dose is large enough is the absence of reflex nausea caused by introducing a spoon down to the base of the tongue. Iron and arsenic should be frequently associated with this medicine to prevent the anemia and cachexia produced by it.

5. Duration of treatment. As relapses in epilepsy occur six years after apparent cure, this author considers that in this disease the length of treatment should be at least ten years; although admitting that he exposes himself to error in this respect.

6. Accidents which may result from the use of this medicine. Bromism has already been noted. Bromic cachexia. This is characterized by considerable decolorization of the skin, blowing vascular murmurs, languor in the movements and expression, general de-

bility and emaciation. This writer believes that every patient who takes bromide of potassium in doses exceeding seventy-five grains daily, should be examined by his physician every five days. He considers it a dangerous habit for pharmacutists to deliver the remedy on a recipe already served. In women who take sixty to ninety grains of the bromide, a dry cough, with difficult inspiration supervenes, especially in the evening or during repose. The cough resembles that of whooping-cough. This medicine produces also cutaneous eruptions.

7. Elimination. Elimination by the kidneys does not seem to be greater in infants than in adults. The alimentary canal eliminates little or nothing. The amount excreted by the skin and through the saliva has not been determined. The present facts do not explain the remarkable tolerance of this remedy in infants compared with adults.

8. Therapeutic value. The two most important points in the treatment of epilepsy are the exhibition of it in a proper dose and a continuance of it for long periods. It acts in two different ways, physiologically speaking; one a sedative action on the medulla oblongata and the spinal cord; the other a constructive action of the muscular fibres of the capillaries, making the tissues anemic. The first explains its efficacy in those diseases where the cord and medulla are excited, as in epilepsy, chorea, simple and traumatic tetanus, spinal irritability of hysterical and anemic patients, etc. Its happy results in spermatorrhoea are due to its capillary constriction. By the same way the buccal, pharyngeal, vaginal, and probably stomacal secretions are diminished. He relates ninety-six epileptic cases treated, twenty of which have not exhibited any further morbid phenomena.

A portion of the article was in support of the great value of this remedy in nervous diseases, particularly in epilepsy. Dr. Brown-Sequard's researches on epilepsy were also referred to as given in one of the lectures by Prof. Agassiz, before the Museum of Comparative Zoology, at Cambridge, Mass., last April. "My friend, Dr. Brown-Sequard," says Prof. Agassiz, "who has made more experiments among animals than any man living, continuing them upon successive generations, and ascertaining what diseases may be transmitted, has stated facts, some of which almost defy belief. These facts are unpublished. I will give a few of them. He has found that the disease of *epilepsy* can be induced in guinea pigs by certain operations, and that this disease, being so introduced into the system, may be transmitted from generation to generation, and thus become hereditary. Where such operations have produced malformations of the skin, as is often the case, these also have been transmitted; or where the paws have been affected by such operations, the peculiarity has been also transmitted. Malformation produced by these experiments as a disease during the life of a parent, has been passed down to the offspring, and even

habits arising from disease have been inherited in the same way. These facts have a fearful significance." The value of Bromide of Potassium and Chloral in disease was then discussed.

Dr. Breinig reported several cases of irritability of the neck of the bladder in females, treated by dilating the urethra and applying a solution of nitrate of silver, 30 grs. to 3, with benefit to the patient.

Dr. Bachman reported a case where he dilated the urethra and applied the solid nitrate of silver with good results.

Dr. Mixsell reported a case of general dropsy in a child seven years old, the sequel of measles, with some heart troubles and difficult breathing. The ordinary remedies used in those cases have been used with no or very little relief. Paracentesis was recommended.

He also reported the case of an adult in which frequent tapping had been performed, and which in two successive operations resulted in a flow of bloody serum first, soon followed by almost clear blood, with no bad effect, except the abdominal cavity would fill up much sooner. The canula was in each case removed when blood commenced to flow.

Dr. Laubach reported a case of secondary syphilis in a female aged about twenty-six, married. She first noticed an eruption on her face about a year ago, and soreness of the vagina, small ulcers appearing on the external and internal parts, the old healing and new ones appearing. The eruption and

soreness growing worse at every menstrual period. The eruption was of the papular character, appeared mostly on the face and arms, very little on the rest of the body, no suppuration of the eruption. There was intense itching in connection with the eruption. She was losing her hair. The parties, as usual, denied all knowledge of the contraction of the disease.

Several members suggested treatment for secondary syphilis.

Dr. Hess, of South Bethlehem, reported a case of supposed zinc poisoning, of which several occurred of the same nature at the zinc works of that place.

It was stated that paralysis appeared to be of more frequent occurrence of late years, and it was supposed by many that it was due to the excitement and over-worked body, both mentally and physically. Dr. Green did not believe this, stating that the disease prevailed in very early times, as shown by history, and among a class of people who were living a quiet life; old people, and those living in retired life, were frequently affected. Dr. Sandt stated that it occurred quite frequently among farmers, and in both sexes. It was also believed that members of particular families were more subject to it than others. It was considered doubtful by some of the members whether the disease can be proved to be caused by the excitement and hurry of the present generation.

After electing several members, the Society adjourned, to meet again at the same place on the third Saturday in October next.

EDITORIAL DEPARTMENT.

PERISCOPE.

What is Cincho-Quinine?

This question is often asked by physicians who have not been made acquainted with the nature of this important agent, and therefore we republish the following article, which appeared in the *Boston Journal of Chemistry*, and which presents its nature and uses:

The chemical manipulation of the Cinchona or Peruvian barks reveals the presence in them of quite a number of most remarkable, complex bodies. No vegetable production, except the poppy, affords such a marvelous combination of valuable medicinal principles as the *toxa* and *calisaya* barks, and no substances have been studied with greater care or more intense interest by chemists. Nothing short of the subtle chemical forces controlled by the Infinite One could construct from the elements of the earth and air a bitter principle like quinia, or those other agents associated in bark, so closely allied to it physically and chemically.

A handful of the finely comminuted fibres of the yellow bark, which resembles physically a dozen other varieties, is made to yield by the chemist, when treated with aqueous and alcoholic liquids and acids, a dark, bitter solution, unattractive in taste and appearance. If the process is skillfully conducted, or exhaustive in its results, there remains, beside the solution, a portion of woody fibre, inert and almost tasteless. It holds considerable coloring and some waxy matter, together with a little tannin; but the active chemical or medicinal principles have been removed, and are held in the dark liquid. The exhausted bark is not entirely worthless, for it may be dried and used as fuel. But what of the dark liquid? From this the chemist obtains, besides other substances, a portion of beautiful, white, silky crystals; not wholly of one distinct kind, but of several, all of which possess about equal chemical and therapeutical importance. No wonder it seems to the uninitiated in chemical manipulation a difficult work to perform. It is, however, quite easy

to the thoroughly instructed. The first principle isolated may be the quinia. This is not held in the bark in its naked alkaloidal condition, but locked up, in the form of a salt, with another principle called *kinic acid*. In the bark it is *kinate of quinine*. We isolate the quinia, tear it from its embrace with kinic acid, throw that away, force it into a kind of matrimonial alliance with sulphuric acid, and in this condition of *sulphate of quinia*, use it as a medicine. This kinic acid marries into several other families resident in the bark, prominent among which are *cinchonina*, *cinchonidia*, *quinidia*, etc. Precisely how many kinds of these alkaloidal principles the different kinds of bark contain, is unknown; but it is safe to assume that there are as many as four others which, although not distinctly pointed out, are tolerably well recognized. These *kinates* are all *kindred* in nature, and all labor to the same end, when isolated and set to work as therapeutical agents in the human system.

In one hundred ounces of good yellow bark, we obtain about two and three-fourths ounces of quinia, and two ounces of cinchonina, with variable amounts of the other principles, but less than the two named. It is to be regretted that we cannot remove the different families of kinates from the bark in their natural state of saline combination. It seems reasonable to suppose their action upon the system would be more salutary than in other forms. It is easy to isolate the kinic acid, and, having the alkaloids, the kinates of quinia, cinchonina, etc., can be reformed; but in these chemical changes so much disturbance to natural organic combinations is made, that, practically, we realize no marked advantages. It seems unnatural to force a natural alkaloidal base out of its association with an organic acid, and recombine it with a mineral acid. This we do in the preparation of the sulphate of quinia. However, as it has served so good a purpose for many years, it is not best to quarrel with the theory.

All the alkaloids of bark possess about equal febrifuge and tonic properties, when isolated and administered in that condition. This has been proved over and over again by all competent chemists and physicians, from Drs. Gomez, Duncan, Pelletier, Caventou, down to the time of Liebig's researches, a quarter of a century ago, and from that time to the present by a hundred careful chemical and medical observers.

How the one alkaloid, quinia, came to supersede the others, and drive them into the background, is easily understood, when we remember that it was about the first that was distinctly eliminated, studied, and experimented with; and the *ecclat* it acquired caused everything else to be neglected. The natural bark, holding all the alkaloids, the quinia, cinchonina, quinidia, etc., has always been observed to produce more efficient and prompt results, both as a tonic and febrifuge, than the quinia, or either of the other principles in themselves; but holding also, as it does, tannin, gum, starch, fibrine, and color-

ing matter, all of which are medicinally interfering or inert, its use is rendered inconvenient and inadmissible in many cases. Besides, it is apt to produce disturbance of the gastric functions of an unpleasant character. Acting upon the idea that the natural alkaloidal principles of bark, in their simple, unchanged condition, separated from the gross, woody, and other matters, would better subserve all therapeutical ends than the barks themselves, or any one of the alkaloids separately employed, Cincho-Quinine has been prepared.

Cincho-Quinine contains no external agents, as sugar, licorice, starch, magnesla, etc. It is *wholly composed of the bark alkaloids*: 1st, quinia; 2d, cinchonina; 3d, quinidia; 4th, cinchonidia; 5th, other alkaloidal principles present in barks, which have not been distinctly isolated, and the precise nature of which are not well understood. In the beautiful white amorphous scales of Cincho-Quinine, the whole of the active febrifuge and tonic principles of the cinchonina barks are secured without the inert, bulky lignin, gum, etc. It is believed to have these advantages over sulphate of quinine:—

1st. It exerts the full therapeutic influence of sulphate of quinine, in the same doses, without oppressing the stomach or creating nausea. It does not produce cerebral distress, as sulphate of quinine is apt to do, and in the large number of cases in which it has been tried, it has been found to produce much less constitutional disturbance.

2d. It has the great advantage of being nearly tasteless. The bitter is very slight, and not unpleasant to the most sensitive, delicate woman or child.

3d. It is less costly than sulphate of quinine. Like the sulphate of quinine, the price will fluctuate with the rise and fall of barks, but it will always be less than the lowest market price of that salt.

4th. It meets indications not met by that salt.

On the Etiology of Albuminuria.

Dr. GEORGE JOHNSON, F. R. S., says, in a late address:—About ten years since the author made a tabular analysis of nearly 300 cases of albuminuria. In each case special inquiry had been made as to the probable exciting cause of the malady, and in the tabular statement of the main points in the history of these cases one column was set apart for the etiology of the disease. Some recent discussion on the influence of alcohol in exciting diseases of the kidney had led him to refer to his analysis of cases for evidence bearing upon this question; nine-tenths of the cases analyzed belonging to the class of hospital or dispensary patients. In 200 consecutive cases, the various etiological influences, single and in combination, came under thirty-three heads. Scarlet fever, intemperance, cold, wet, and gout, either single or combined, accounted for 120 cases out of 200, or 60 per cent. Thus,

albuminuria was probably the result of scarlet fever in 24 out of 200 cases, or 12 per cent.; of intemperance in 28, or 14 per cent.; of intemperance and gout in 12, or 6 per cent.; of intemperance and cold in 12, or 6 per cent.; of gout in 8, or 4 per cent.; of cold and wet in 23, or 11.5 per cent.; of cold in 13, or 6.5 per cent. Intemperance, either alone or combined with other influences, was the probable cause of albuminuria in 58 out of 200 cases, or 29 per cent. Of these 58 cases, in 28 intemperance was believed to be the sole cause; in 12 intemperance with gout, in 12 with cold, in 4 with syphilis, and in 2 with lead. Cold, either alone or combined with other influences, was the exciting cause of albuminuria in 25 per cent. of the cases. In 6.5 per cent. cold alone is believed to have been the cause of albuminuria, in 11.5 per cent. cold and wet, in 6 per cent. cold and intemperance, and in 1 per cent. cold and fatigue. Albuminuria was associated with scarlet fever in 12 per cent. out of 200 cases, with exposure to cold and wet in 25 per cent., and with intemperance in 29 per cent. The following table shows the proportion per cent. of deaths, recoveries, and of persistent albuminuria in cases resulting from: 1. Scarlet fever; 2. Exposure to cold and wet; 3. Habits of intemperance.

	Scarlet Fever.	Cold and Wet.	Intem- perance.
Deaths.....	45.83	27.5	67.23
Recoveries.....	50.	38.83	10.33
Persistent albuminuria..	4.16	83.33	22.41

Of the 58 intemperate patients, 11 were women, and 47 were men. In 5 cases out of the 47 men the occupation had not been recorded. Of the 42 men whose occupations had been noted, 5 were waiters. The remaining 37 intemperate men had thirty different occupations, not one of them connected with the manufacture, sale, or distribution, of alcoholic liquors. It was then not right to assume that men in the class of hospital patients engaged in the liquor trade, and not notorious drunkards, might be placed in a "non-alcoholic" class. The excess of Bright's disease amongst males, as compared with females, was explained by the fact that, as a rule, men are more intemperate and more exposed to cold and wet than women. Amongst the cases analyzed, 76 per cent. were males, and 24 per cent. females. Out of the 58 cases associated with intemperance, 83 per cent. were males; and of the 36 resulting from cold and wet, 77 per cent. were males. In addition to the causes of albuminuria before referred to, the following influences appeared to have been causative, the figures showing the proportion per cent. in a total of 200 cases:—Typhus fever, 4; typhoid fever, 1; erysipelas, 1; pyæmia, 1; measles, 1; rheumatic fever, 1; puerpera, 1; cholera, .5; whooping-cough, .5; diabetes, .5; syphilis, 3; phthisis, 2; venereal excesses, 5; poverty and hard work, 2.5; emphysema and bronchitis, 3.5; morbus cordis, 3.5; scrofulous disease of bones or joints, 2.5; scrofulous abscess, .5; lead, 1;

tropical climate, .5; hydrophobia, .5; mental anxiety, 1.5; pregnancy, 2.5. The result of the author's later experience would be to add to this long list of causes of albuminuria; particular reference being made to diphtheria, relapsing fever, malarious fevers, yellow fever, and to certain forms of dyspepsia, either with or without an excessive consumption of alcohol or of tobacco, as causative of albuminuria and degeneration of the kidney.

Treatment of Puerperal Convulsions.

The following was read by Dr. JOHN H. TATE, before the Cincinnati Academy of Medicine, and printed in the *Lancet and Observer*:—

In regard to the treatment of this disease, we may remark that it is a mistake to suppose that every woman who has albuminuria will, of necessity, have convulsions. Equally is it an error to imagine that every woman who is taken with eclampsia must, of necessity, die without treatment? On the contrary, we have no doubt that some would recover if left alone; and we feel even more sure that a few have recovered, notwithstanding the most improper treatment.

Still the disease must be viewed as not only a very alarming, but a very perilous one; and hence its proper method of treatment presses on our attention.

The treatment of this form of disease has varied greatly at different periods. At one time, when it was looked upon as a nervous disorder, it was treated with anti-spasmodics and narcotics; when opinion changed, and it was supposed to depend simply on plethora, venesection was almost invariably employed; and latterly, since it has been ascertained that the blood is diseased, the treatment has undergone another change, and in fact, at present, there is a great discrepancy of opinion as to the course to be pursued. Some losing all confidence because they cannot at once change the state of the blood, follow an expectant plan; some rely solely upon ether and chloroform inhalations; others renew the old method of treatment by narcotics, but employ the hypodermic syringe; while many still go on employing the lancet, and proclaiming their success.

In order properly to treat this affection, there are five things which must be kept clearly before the mind, viz: the general condition of the patient; the predisposing cause; the exciting causes which induce, and often keep up the disease; the tendency to death, which is manifested by its progress when left uncontrolled; and lastly, the time in the puerperal period at which convulsions occur.

I. Condition of the Female.—We have already stated that seventeen-twentieths of all cases of puerperal eclampsia occur in primiparæ. Now, they, with great invariability come to the close of gestation with their digestion in excellent condition, and with the vascular system in a state of

plethora. This plethora may be serous, and in a majority of cases there is effusion into the areolar tissue of the face and upper extremities, a condition which should not be confounded with a similar state of the lower limbs, often the result simply of pressure on the femoral veins. Demart and Hamilton called attention to this fact at the beginning of this century, but it is remarkable how many authors have since failed to notice its frequency, and in fact only speak of it, as it were, by accident.

This serious plethora, with edema, gives a dingy, colorless expression to the features, and has therefore been confounded with anemia; whereas, when blood is taken, there is found an abundance of red corpuscles, though of course there is relatively an increased amount of serum.

Just here, perhaps, it will be well to notice the views of Traube and Rosenstein, who regard this disease as an acute edema, with consecutive anemia and cerebral disturbance. But the edema in this case is nothing more than an effusion into the areolar structure, such as ordinarily results from obstruction to the functions of an important emunctory, and I do not see with what propriety acuteness is ascribed to an affection which often comes on so stealthily as to require days and weeks for its manifestation. As to the consecutive anemia, it is a mere piece of phantasy on the part of those who can look no deeper than the skin, and is utterly disproved by the richness and coagulability of the blood, as well as by most of the circumstances attendant upon the development of this disease.

II. *The Predisposing Cause.*—Of this we have already said sufficient to impress every one with the importance of its influence in determining an enlightened treatment.

III. We must keep in view the exciting causes. What these are we have already indicated, and we will illustrate the importance of giving proper attention to them in some cases, which we will presently report.

IV. A due regard must be given to the tendency to death. Death in these cases results from congestion, accompanied with serous or sanguineous effusion upon the surface, or into the substance of the nervous centres, or from coma, which becomes more and more profound as the interval between the paroxysms becomes less, until at length respiratory movements are altogether suspended. This coma is no doubt due in part to the frequent swamping of the nerve cells in adulterated venous blood, and in part to the undue pressure to which they have been subjected in consequence of the congestion.

Lastly, the importance of regarding the period of gestation at which the convulsions may appear will be sufficiently shown in the cases which follow.

Taking, then, into consideration, the general condition of these patients, together with the death tendency, it is manifest that the first indication of treatment is to pro-

tect the brain by a free venesection. If the pulse should rise and vascular turgescence of the eyes and face be present, and head-pain, this should be repeated, unless the convulsions can be controlled by dashing the head with cold water, ligatures applied around the extremities, and pressure made upon the carotids, or by chloroform. The value of this treatment is illustrated by the following cases:—

Case 1.—1853. Mrs. S., aged 30, primipara; abandoned by her husband and left in great destitution; has been melancholy for weeks; now occupies a pallet on the floor in a room twenty feet square, in which are also two double beds, a cooking-stove, and a table. The family consists of four grown persons, two children, and four day-boarders. Was called to see her at two P. M., February 4th. Learned that she had had nine fits before I saw her. Soon after I entered, and while examining the pulse and edema of her limbs, a violent convulsion came on, lasted for some minutes, and left her entirely unconscious of everything around her. Os uteri undilated; bled fifty ounces by measure; cold applied to head, warmth to feet, stimulating injections per rectum.

February 5th. No more convulsions, but comatose. Put ligatures on the extremities and rubbed them with warm turpentine. No fetal pulsations discoverable.

5 P. M. Patient now speaks, but not rationally; to be purged with croton oil; no labor pains.

February 6th, 8 A. M. Was freely purged, after which labor came rapidly on, and at two A. M. she was delivered of a dead child. She now recognizes her friends, but laughs and cries; talks incoherently, and is evidently in a state of hysterical mania. She does not remember anything about her recent delivery, or of having been bled, etc.

February 9th. All unpleasant symptoms have subsided, patient quite rational, and soon made a good recovery.

Case 2.—A woman was admitted into the Commercial Hospital in labor with her first child. She was well formed, of medium size, with face and limbs edematous. She was taken into the obstetrical ward, and fell under the supervision of a gentleman who was violently opposed to the use of the lancet in such cases, and especially when attended by edema. The treatment I think consisted of injections per rectum and the administration of chloroform. The convulsions continued, and at the end of some hours the patient died. A post-mortem was held, the brain proper examined, and the case was reported as one giving no countenance to the use of venesection. Not feeling satisfied with this examination, and supposing that the medulla had about as much to do with convulsions as the brain, I persuaded the pathologist, along with another member of this Academy and myself, at ten P. M., to revisit the dead-room. The muscles of the scalp were rich in red corpuscles, and on opening the spinal canal so as to get a view of the oblongata and spinalis, we were sur-

prised to find a clot of blood five inches long, by half an inch in width, lying upon the surface and extending downward from the oblongata over the medulla spinalis.

Having protected the brain and nerve centres from the danger of effusion, we next turn our attention to the exciting causes, and if possible, remove them. As illustrative of this take the following case:—

Case 3.—*Irritation in Alimentary Canal.*—Mrs. M., aged 20, large head, light hair and eyes, good physical conformation, primipara, latterly troubled with headache. Labor began at daylight; nothing unusual until eleven o'clock, when the patient had a strong convulsion. The patient recovered consciousness, but soon had another fit. She was now bled to faintness. For a while no convulsion returned. Injections of salt and water were used and cold applied to the head. The convulsions returning, she was bled a second time to twelve ounces. After this she remained unconscious, but had no further convulsion until after the delivery of the child, which took place at five P. M. All seemed now to go on well, until suddenly a frightful convulsion came on. The patient was now given croton oil every fifteen minutes; the bladder was evacuated, and urine found to be rich in albumen. The hands and face had been very greatly swollen. In a little while the oil took effect, when the patient passed a large amount of undigested green corn, which she had eaten the day before. After this, all went on prosperously. The child was born alive.

Syphilitic Fever.

The Parisian Correspondent of the *British Medical Journal* says M. ALFRED FOURNIER, a sub-professor of the Faculty of Medicine, and a young distinguished syphilographer, has begun a course of lectures at the Hôpital de Lourcine (the Paris Lock Hospital) on syphilis as it occurs in women. I need hardly say that all his lectures are very interesting, but there is one that deserves particular notice, as it treats of a subject but little known among practitioners, even among specialists, of that class who are in the habit of looking upon the affection about to be described as entirely apyretic, or merely symptomatic of some disturbance in the economy more or less connected with the perturbation caused by the affection in question, and not a sequence of this latter. I allude to what M. Fournier designates *fièvre syphilitique*, which, he says, is a sort of essential fever of a specific character, and is intimately connected with, or the result of, the syphilitic diathesis. It presents itself in two different forms: It is sometimes purely symptomatic, and at others it assumes all the characters of an essential fever. The former is the less frequent, manifesting itself as an epiphenomenon of the syphilitic eruptions, and assuming the continued type, which, however, is of short duration. The essential form principally manifests itself on the appearance of the secondary symptoms;

the nervous temperament seems to act as a predisposing cause; while, among the proximate causes may be named the expectant or want of proper treatment; and, in proof of this latter assertion, M. Fournier observed that, whenever syphilis was early and properly treated, the fever was generally *nil*. This essential fever sometimes assumes the intermittent, sometimes the continued type; it is irregular in its character, and occurs with or without paroxysms. It is, however, distinguishable from the same class of fevers of malarious origin by the following symptoms. In syphilitic intermittent fever, which is nearly of the quotidian form, the paroxysms recur at night; and it also differs from the malarious intermittent type by the absence of the cold and sweating stages, as well as by the absence of those complications generally met with in the ordinary intermittent fever; but the most characteristic feature is that the spleen remains unaffected, whether during or in the intervals of the paroxysms. The continued type of syphilitic fever is like the common continued, either of the simple or paroxysmal form. M. Fournier described also a third form of syphilitic fever, in which the symptoms are very irregular, and therefore cannot be classed with any of the above types. Sometimes the fever assumes an adynamic character, somewhat analogous to typhoid, to which M. Fournier has given the name of "typhose syphilitique." The prognosis, however, of this latter is not so unfavorable as the genuine typhoid, and the patients recover, first from the adynamic condition, then from the fever; but the syphilis runs its course as if nothing else had happened. Another distinguishing character of the syphilitic intermittent consists in its unamenability to the action of quinine, so efficacious in ordinary intermittent fever; and the only agent that seems to have some influence on the progress of the disease in question is mercury, either alone, or combined with the iodide of potassium; but while its efficacy has been proved in the intermittent form of syphilitic fever, its action in the continued form is *nil*, or at least uncertain. M. Fournier administers the mercury internally, unless counterindicated by the state of the stomach or bowels, in which case he replaces it by mercurial frictions. M. Fournier offers the above, not as a theoretical speculation, but as the result of clinical observations, taken for a series of years, and with the thermometer and sphygmograph in hand.

The Value of Oatmeal.

La France Medicale informs us that M. Dujardin-Beaumont, having obtained a large quantity of meal from Scotland, has been experimenting with it, young children being the subjects of the experiments. He observes that without speaking of the *bouillies* (porridge?) and cakes which the Scotch prepare from the meal, it is employed by them as food for young children, although the form

in which it is said to be so used appears somewhat novel to such of us as have been a good many years absent from "the land o' cakes," namely, a jelly, prepared by macerating a tablespoonful of the meal in a glass of water for twelve hours, then straining through a sieve, boiling till the whole assumes the consistence of jelly, and adding sugar or salt according to taste. According to analysis, 100 grammes of the meal contain gr. 8.7 of water, 7.5 of fatty matters, 64 of starch, 12.2 of nitrogenous matters, 1.5 of mineral substances, and 7.6 of cellulose, dextrine and loss. Its nutritious value, therefore, as food for children, in regard to azotic or plastic elements, and such as are "respiratory," is analogous to human milk, or that of the cow. Besides these, it contains more iron than do most of the ordinary articles of food.

M. Beaumitz had fed four newly-born infants on the preparation just described, and in all of these with satisfactory results. He considers that in addition to its qualities as food, it acts efficiently against colic and diarrhoea. It enters into the composition of the *syrrup of Luther*, which is said to be much used in Germany. M. Gillette, surgeon of the hospital of Melun, has also given oatmeal "combined with cow's milk," to six children, and his experiments have proved how that food may be valuable in cases where the natural supply of milk is deficient. He adds that the nearer the infant approaches its first year, the more does alimentation by oatmeal appear to be profitable.

The Use of Electricity in Labor.

In an Italian journal, Dr. MARTEMUCCI regards electricity as preferable to ergot in cases of inertia of the uterus during labor, for the following reasons. 1. The obstetrician who uses electricity has the uterine contractions under control, and can put a stop to them if any circumstances arise which indicate that this should be done; while, when the uterine action has once been excited by ergot, he has no control over it. 2. When ergot is given, the labor must be completed at once; otherwise the fœtus is in danger from pressure on it and on the placenta. 3. Under the use of electricity, the physiological uterine contractions can be closely imitated; while with ergot they are not attended with that periodical relaxation which is so favorable to the mother, and especially to the fœtus.

Dr. Martemucci has also found electricity useful in the hemorrhage attending placenta prævia. He regards his observations as confirmatory of those of Radford and others, as to the value of the treatment.

—The French Academy of Science has recently shown its estimate of DARWIN'S claims as a man of science by rejecting a proposition to elect him a member, by a vote of 26 to 6.

REVIEWS AND BOOK NOTICES.

NOTES ON CURRENT MEDICAL LITERATURE.

—We have received a pamphlet describing a "fracture bench," devised by Dr. A. LeB. MONROE, of Norfolk, Mass. It is republished from the *Boston Medical and Surgical Journal*.

Also, "Ergot in the Treatment of Nervous Diseases," by Dr. Daniel H. KITCHEN, assistant physician of the New York State Lunatic Asylum, republished from the *American Journal of Insanity*.

The "Local Use of Tar in the Treatment of Skin Diseases," is an article by Dr. L. D. BULKLEY, reprinted from *Brown-Sequard's Archives*.

BOOK NOTICES.

Insanity in its Relation to Crime. A Test and Commentary. By WM. A. HAMMOND, M. D., etc. New York: D. Appleton & Co., 1873. 1 vol., cloth, 8vo, pp. 77.

The author quotes three famous murder cases from the *Causes Celebres*, and examines them with the knowledge of a specialist in insanity, to find whether these crimes were attributable to mental disease. The criticism is close and a model of its kind. The result is that although two of the accused were pronounced sane on the trial, and one of them hanged, they were, in Dr. Hammond's opinion, all three insane.

In his commentary he touches upon one point which is too often overlooked in dealing with such cases. It is the power of self-control in the insane. This is by no means absent, as the public generally, and many physicians seem to believe. This false impression is dangerous, for the insane are well aware of it, and they know it gives them an immunity from the severest penalties of the worst crimes. Dr. Hammond urges insane criminals should be punished, not for the sake of Society, directly, but for the sake of conveying such an impression to the other insane that they will exercise that power of self-control which they have, and which they can use if they try to do so.

MEDICAL AND SURGICAL REPORTER.

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S. W. BUTLER, M. D., D. G. BRINTON, M. D., Editors.

☞ Medical Societies and Clinical Reports, Notes and Observations, Foreign and Domestic Correspondence, News, etc., etc., of general medical interest, are respectfully solicited.

Articles of special importance, such especially as require original experimental research, analysis, or observation, will be liberally paid for.

☞ To insure publication, articles must be *practical, brief* as possible to do justice to the subject, and *carefully prepared*, so as to require little revision.

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We particularly value the practical experience of country practitioners, many of whom possess a fund of information that rightfully belongs to the profession.

The Proprietor and Editors disclaim all responsibility for statements made over the names of correspondents.

THE EUTHANASIA.

Whether, when a patient is past all hope, a victim to a fatal disease, entailing great agony, when, as sometimes happens, he and the family alike beseech us to "put an end to his misery," ought we to do so?

Generally we dodge the responsibility of answering, and at the same time meet the requirements of the case by prescribing such a dose of opium or other narcotic that will certainly plunge the patient into a profound sleep, whence he may or may not come forth.

"Thou shalt not kill," like all other commands, Divine or human, must not be construed too literally, but according to the spirit of the law. So moral writers have always regarded it, and to take life has ever been allowed, even by that same Divine law, for adequate reasons.

Sir THOMAS WATSON, in his *Practice*, speaking of the certain death and intense agony of hydrophobia, intimated that were he the subject of that disease, he should not seek a remedy, but a release, the only one, by death. Formerly, those who suffered from it were smothered, and the great writer on ethics, Benedict de Spinoza,

makes a point of defending this medical practice.

Personally, we have often been asked—and we presume our experience is by no means singular—by the friends of the sick and by the patient himself, to administer some potent drug that would close the fearful struggle. Lately in a Chicago paper we saw an article full of impassioned protest against the uniform refusal with which medical men meet this demand. An extract from it we preserved. This is it:—

"She has kissed us good-bye; she has said her last farewell; yet must we stand in wild agony, and witness the torture of her whom we love?

"Yes, hours ago the doctor said she was dying, and yet the clock ticks away its slow time, and she lingers.

"Should it be? Should it be? This is my question; a question that must be answered.

"I have begged and I have prayed the doctor to give her that which her eyes are piteously begging, and still he shakes his head.

"It is right! It is merciful!"

"Yes, but I dare not."

"Oh, pitiful coward! you see through world-blinded eyes! And that which would close my mother's eyes in sweet sleep, relax the stiffened muscles, bring smiling rest upon her poor face, and waft her soul through happy dreams into the other world, is withheld!

"Shall false prejudices ever blind us? Shall disease torture its victim to the last? Shall we always watch in numb horror the death-agony of our loved ones?

"It is a vital question to us all, and must be answered?"

There is strength in this. There is a real sympathy for the sufferer in these violent words. In mercy to the writhing worm we crush its life out; does that mercy not extend to our fellows?

Fortunate for us, fortunate for the hopelessly ill, that the "drowsy potions of the East" stand us well in most of these cases. But there are times when even they fail us, and the old question confronts us again. The true solution is not in violent means, but

must rest in future discovery. The law of sickness is suffering. To assuage this we have many means, far more than our fathers had, and if still not enough, we should study to use those we have to the best advantage, and seek diligently for more. It would be no benefit to the race, even if public sentiment and our own conscience justified us in invoking Death to relieve suffering. It would, indeed, be an injury, for it would offer a substitute for further means. In the realm of nature we may confidently trust many substances exist capable of diminishing and relieving pain. With suffering before us to demand them, science will certainly find them out. Sooner or later that perfect one will be discovered which will soothe and numb the sentient fibres which call forth pain, while the intellect and special senses will continue in their unimpeded activity.

NOTES AND COMMENTS.

The Cholera in Tennessee.

A correspondent in East Tennessee writes:—

"There is some discrepancy among our professional *confreres* of this State regarding the malady which prevails with more or less virulence from Shelby to Johnson. In some localities it is comparatively mild. But at other places, some of which are widely separated, it has been very malignant. The deaths in Nashville, from cholera, have already, probably, reached one thousand this season. In Gallatin, a small town, the death-rate has been one to fifteen. Granville, in East Tennessee, has, perhaps, lost five *per cent.* Local causes have unquestionably increased the malignancy of the prevailing disease. These causes, which in Granville made cholera so fatal this summer, would last year, probably, have developed a severe type of intermittent fever; peradventure, next season it would result in remittent, or probably *typhoid* of a grave form. Here, and elsewhere, in the absence of local causes, when the hygienic influences are good, cholera exists, but of a mild type, and easily subdued by prompt treatment. In a community where people die at an un-

precedented rate, to impute half the cholera cases to "cholera morbus," as is the custom of some physicians, is, I think, "a distinction without a difference." We have *authentic* private advices from both Knoxville and Chattanooga, which confirm the rumor of the last several days, viz: the existence of *death-producing cholera* at each of those places. It is hoped that the intelligent exertions of the municipal authorities, prompted and aided by the medical men, will soon entirely banish the panic creating invader from the two rival and growing cities of East Tennessee."

Newspaper Puffery.

The repeated examples we receive of the publication of startling "operations" by or with the knowledge of the physician in attendance, seems to show that that insidious form of advertising is on the increase. Otherwise reputable practitioners favor it, and seek its benefits. It is every whit as objectionable as the most fulsome handbills or market crying. Its tendency is the same, to deceive the public and injure the general standing of physicians before the public.

Curious Wounds.

As a matter of medico-legal interest, we quote the following from a daily paper:—

A man was hanged the other day at San Francisco, for murder with a weapon of a peculiarly dangerous, and for a long time mysterious, nature. This is a sand club, formed by filling an eel skin with sand. When this instrument was first brought into use, the authorities were greatly puzzled by deaths, apparently from violence, yet no marks could be found on the outside of the body. A burglar was finally captured with a sand club in his possession, made out of an eel skin stuffed with sand. Being closely questioned, he explained its use. When the victim is struck, for instance, on the head, he drops insensible, and soon dies from congestion of the brain. Often the skull suffers no injury from the stroke; and if the person struck recovers sensibility, he gradually relapses into a condition of idiocy. Sometimes a man struck in the body will be knocked down by the peculiar force of the blow, and feel no immediate results from it. In a few weeks, however, the flesh will begin to mortify under the line of the blow, and rot down to the bone. Heller, the celebrated

pianist, is supposed to have met his death in Mexico from a stroke of this diabolical weapon.

Beneficiary Scholarships.

While it is right and proper that our medical schools should have a few beneficiary scholarships, it is a very poor investment, that will not pay in the long run, when they go into the business by wholesale, merely for the purpose of filling up empty benches, and gaining a possible prestige for having large classes. Thus, we are informed by a certain college that it has created a number of Beneficiary Scholarships, for the benefit of poor but deserving young men seeking a first-class medical education. One Beneficiary student is received from each Senatorial District of any State, and one from each Congressional District of any State, and one from each Congressional District of the different States. Sons of physicians and clergymen are very properly accorded Beneficiary Scholarships. Each Scholarship is worth to the recipient of it \$200, and those receiving such aid are known only to the Dean.

It won't pay, and tends to lower the standard of medical education.

CORRESPONDENCE.

A Case of Stone.

EDS. MED. AND SURG. REPORTER:—

Elbert H. Smith, aged 52 years, died on the 13th of this month. There are some things connected with this case which I think will interest the profession. For the past seven or eight years he has been afflicted with disease of the urinary organs. Some three or four years ago I diagnosed the case vesical calculi, but not having experienced much benefit from treatment he applied to several physicians of extensive reputations, who, without an exception, pronounced my diagnosis wrong. He was treated by several of them for a long time, but without benefit. For the last two and one-half years he has been unable to void urine, and has been compelled during all that time to use the catheter. The only agent which has given him relief for a year or two is morphine, which he took in enormous doses, the sulphate, a teaspoonful at a time. I was granted the privilege after his death to examine the bladder, under the promise to go no further.

I found this organ in an almost unrecognizable condition. The walls were thickened, and indurated, and adherent to the peritoneum, and this in turn adherent to the neighboring tissues, until the whole, as a mass, seemed to be attached with almost

tendinous tightness to the pubic and iliac bones. Upon making an incision into the bladder I found it almost filled with stones. I have them now in my possession, numbering one hundred and sixty-seven. The largest one is about as large as a good sized marble, though it is flattened. The smallest is about as large as a pea, though the most of them are about the size of a bean. The largest is white, or nearly so, and the others bluish, mottled, all smooth, with the same beany shape. I should have liked very much to have examined the kidneys, but could not do so and be true to my promise. This case appears to me to be remarkable in the following particulars.

1. The use of the catheter for the length of time stated would be expected to produce serious, if not fatal, results.

2. The extensive visceral adhesions and attachments, caused, of course, by inflammatory action.

And 3. The number of the stones, filling, as they did, almost entirely the remaining cavity.

I regret that I am not able to make a more elaborate and scholarly report of the case, but mine being a country field, requiring a good deal of activity, I have not the time to do it.

B. C. TOLER, M. D.

Astoria, Ill., July 13, 1873.

Case of Extraction of a Foreign Body from the Larynx.

EDS. MED. AND SURG. REPORTER:—

I communicate the following case to the profession, because I think it an interesting one, particularly since it shows how sometimes even competent physicians make awkward mistakes in the diagnosis of simple cases, for want of a sufficiently careful examination.

On the 6th of last May a youth of eighteen called on me, in company with his mother. He was suffering from a constant tickling in the throat, accompanied by a spasmodic cough, and the general health of the system was considerably affected. I learned from the patient that he had been for the last three months under the care of Dr. S., a very respectable practitioner, who had first treated him for *diphtheria* and afterward for *asthma*. The course of treatment pursued, however, was not successful, and the patient was finally put upon the hygienic method, and instructed to exercise freely in the fresh air, which should restore him to health. The patient having been in this condition some time previous to calling on me, I thought it not unlikely that the failure of treatment proceeded from a mistaken diagnosis. This was strengthened to conviction when the patient told me that Dr. S. had personally examined him for more than a month.

The symptoms pointed to the influence of some foreign body in one of the *fossæ*; but the patient had no recollection of anything having lodged in his throat. I then had recourse to the laryngoscope. I soon discovered a foreign body lodged in the left hyoid

fossa. It had the appearance of a short piece of straw, but turned out to be a grain of barley. How it got there I could not find out.

To effect its removal I bent a glass tube at an angle of 45° a short distance from one end. This end was filled with powdered alum. The other end I placed in my mouth, and having so placed the laryngoscope as to give a clear view of the foreign body, I blew the alum into the fossa. This I repeated after ten minutes' interval. The alum acted well, coagulating the mucus surrounding the foreign body, and exciting a violent cough. In fifteen minutes the barley grain was thrown out, and the patient has since been entirely well. A. HÄRSHBERGER, M. D.,
Supt' Soldiers' Orphans' Institute,
Cor. Twenty-third and Parrish Sts., Phila.

Migraine.

EDS. MED. AND SURG. REPORTER:—

To the excellent article on this subject by Dr. T. Curtis Smith, in the REPORTER of July 12th, I would add one or two suggestions.

In the last twenty years I have permanently cured many cases of sick headache, by giving, three times a day, ten drops of tincture of nux vomica, and continuing this treatment from two to six months. When a paroxysm of pain is threatened, give an extra dose or two of twenty drops each. If, in spite of this, the paroxysm come on and be severe, with great nausea, administer a mild emetic, and follow that with a dose of bicarbonate of soda and comp. spirits of lavender. If morphine be used at all, combine a small dose of it with a large dose of quinine.

Persons subject to sick headache often have other ailments, which require remedies appropriate therefor; but, for the headache itself, I prize the nux vomica above all the rest of the *Materia Medica*. When the patient objects to the bitter taste of the tincture, I give instead of it, a sugar coated pill of the extract, or of strychnia.

Opium and its preparations have their proper but limited use in this, as in many other diseases. Their excessive use by some physicians of the present day is an error, which ranks with the blood-letting of forty years ago.

SUMNER RHOADES, M. D.,
Syracuse, New York.

NEWS AND MISCELLANY.

Green County, Ind., Medical Society.

The Society met at Bloomfield, June 20th. Papers were read and cases of interest reported.

Drs. Hilburn, Brouillette, Smydth, Harrah and Gray were appointed a committee to write essays.

The following members were appointed a committee to report cases: Drs. Rose, Tal-

bott, Benefiel, Lowder, Aydelotte, Keys, Stone, Minich and McDaniel.

Dr. McDaniel was requested by the Society to give a history of the practice of medicine in White River Valley as it was twenty-four years ago.

Resolutions of respect for the memory of Dr. W. F. Sherwood, who died March 14th, 1873, were adopted.

The Society adjourned, to meet at Newberry, in June, 1874. With all the working material the Society has it ought to meet quarterly, or at least semi-annually.

A New County Medical Society in Pennsylvania.

A number of the physicians of Adams Co., Pa., met in Gettysburg, on Saturday, June 14, for the purpose of forming a County Medical Society. A temporary organization was made, with Dr. A. Holtz as President, Dr. R. B. Elderdice Secretary, and Dr. J. L. Baehr Treasurer.

A committee of six, viz: Drs. R. Horner, J. W. C. O'Neal, C. Thompson, J. L. Baehr, W. J. McClure and R. B. Elderdice, was appointed to draft a Constitution. The convention adjourned to meet at the same place on Monday, June 23, 1873, when a permanent organization was effected, with the following as officers for the ensuing year:—President, Dr. R. Horner; Vice-Presidents, Dr. H. S. Huber, Dr. A. Holtz; Recording Secretary, Dr. R. B. Elderdice; Corresponding Secretary, Dr. W. J. McClure; Treasurer, Dr. J. W. C. O'Neal.

Seneca County, N. Y., Medical Society.

At the annual meeting of the Seneca County (N. Y.) Medical Society, held at the Towsly House, in Waterloo, Wednesday, July 9th, the following officers were elected for the ensuing year:—

President, Frederick Glauner; Vice-President, W. W. Wheeler; Secretary, S. R. Wells; Treasurer, A. J. Alleman; Censors, A. Balter, S. P. Johnson, and C. M. Woodward.

The retiring president, Dr. Jeremiah Dunn, delivered the annual address, an able and interesting paper on Embolism. Essays were read by Drs. Woodward, Glauner and Johnson.

The Question of Petrification.

It having been stated in the newspapers that the body of Mrs. George Bennett, of Waterford, Vt., who died in 1854, at the age of 48 years, was found, on its recent removal from the cemetery of Waterford to that of St. Johnsbury, to be in a state of "petrification," the legs and body "being in perfect form and as hard as granite, and being touched with a hammer gave a sharp, ringing sound," Dr. H. A. Cutting, of Lunenburg, State Geologist, writes as follows with reference to the matter:—

"We think in justice to the reading community the above should be corrected. For more than fifty years the combined efforts of

scientists have failed to find the least portion of the soft part of any warm-blooded animal that has been petrified. Our reasoning powers teach us to believe that man would be the last in that class to petrify, as his flesh more readily passes into decay. The testimony of two respected citizens of St. Johnsbury to the petrification of Mr. Trescott, should be within the memory of all, and their dismay at his second disinterment, when it was found that his body had been preserved in the waxy adipocere state, without any indication of petrification. It will certainly be remembered by several citizens there present. I have in person investigated several cases, even where reliable witnesses in other matters would under oath swear to their petrification, and all were simply remarkable states of preservation by the adipocere process. That this may be more fully understood, I will state that adipocere is a waxy substance, of a cream color, into which the fat and muscular fiber of dead animals are sometimes converted, by long immersion in water, or by burial in moist places, in early spring, or in wet seasons.

This substance was first discovered and described in 1787, and decays in a few hours upon exposure to the atmosphere. It may be artificially formed in a few days by immersion of bits of flesh in a solution of picric acid, or even in spirits. But as yet it is a safe conclusion to report the truth, that no soft part of any human body has been found petrified; yet such petrifications have been assiduously sought after for many years. Thousands of cases in different parts of the globe, under the most favorable circumstances for petrification, have been investigated, and all found upon such investigation to be adipocere. Pretended petrifications have been exhibited, but they were always statues, cut from the stone by some ingenious rogue who wished to humbug somebody, and were too often successful for a time, as with the Cardiff giant, and so called Indian boy, recently exhibited in several large places in New England. If Mrs. Bennett was petrified, that petrification would bring more than its weight in gold, and it would require a body-guard, even in the quiet town of St. Johnsbury, to keep it buried. Such a specimen placed in the British museum would be valued higher than the crown jewels, and would be a relic more rare than anything that exists on earth. Truly Yours,

H. A. CUTTING.

The Cholera.

The cholera is officially announced to have disappeared from Vienna, and is stated, on governmental authority, to have appeared nowhere in France up to August 10. It is creeping northward in outlying villages on and near the Mississippi river, as far north as the fortieth parallel. Hannibal and Morrisiana, Mo., and a number of small towns in Southern Illinois and Indiana have suffered. Occasional cases in Indianapolis, Columbus, and Cincinnati are still reported.

—Dr. W. I. Blodgett, a practicing physician of Kingstown, Middlesex county, New Jersey, on July 17th, took two spoonfuls of aconite for laudanum. He discovered his mistake and quickly swallowed an emetic, which failed to act, and he died shortly after.

So say the newspapers. But if suicide was the object, as would appear from the quantity of laudanum intended to be taken, why not aconite as well as laudanum?

—The Michigan University, at Ann Arbor, has matriculated eighty-eight girls for the coming college year, beginning in September. Forty-two have entered for the literary course, and thirty-seven for the medical.

—The American Dental Association, which was for several days in session at Put-in-Bay, Wisconsin, adjourned on Saturday, August 9th. The meeting was the largest yet held by the Association.

QUERIES AND REPLIES.

Hypodermic Syringe.

Dr. F. R. K., of Ill.—Your inquiry in reference to the inventor of the hypodermic syringe was delayed. The inventor was Pravaz, a French physician. There is no special work on the subject of recent issue.

Chapman's Hysterology.

Dr. A. J. K., of Penna.—This work is published by William Wood & Co., New York city.

Obstetrical Journal.

Dr. L. C. M.—The *Quarterly Journal of Obstetrics* is published by Henry C. Lea, of this city.

Physiology.

Inquirer.—We recommend BURDON SANDERSON'S *Physiology* as the most valuable to one who wishes to make a thorough and practical study of that science. A notice of its scope is in the *REPORTER*, last volume, page 448.

Vinegar Bitters.

MR. EDITOR:—Will you please request some of your chemical correspondents to furnish, through the *REPORTER*, an analysis of "Walker's California Vinegar Bitters," a nostrum with which Western practitioners are daily annoyed? MEDICUS.

Tolono, Ill., Aug. 1, 1873.

DEATHS.

BEARD.—At Westville, Conn., July 26th, of cholera infantum, Edith May, only child of Dr. Geo. M. and Lizzie A. Beard, of New York, aged 6 months and 19 days.

CAMPBELL.—At Tryon Plantation, Polk county, North Carolina, July 1st, Dr. Wm. Campbell, of Harmarville, Penna., aged 38 years, 3 months, and 6 days.

PARSHALL.—At his residence, in Cincinnati, Aug. 2d, of inflammation of the bowels, Dr. J. B. Parshall, aged 59 years.

POMEROY.—Suddenly, by accident, at Union Square, on the Syracuse Northern Railroad, on the morning of the 30th ult., William Pomeroy, M.D., of New York city, aged 35 years.